Multiple Choice Quiz 1

The Effect of Cervical Spine Isometric Contract-Relax Technique on Hamstring Extensibility

1. In 1997, what effect of cervical contract-relax did Pollard & Ward report?
- ☐ **a.** Decreased cervical pain pressure thresholds
- ☐ **b.** Increased cervical range of motion
- ☐ **c.** Increased hamstring extensibility
- ☐ **d.** Decreased hamstring extensibility

2. Pollard & Ward have suggested that a different approach to treating the hamstring muscles might be useful because
- ☐ **a.** Cervical treatment is more supported by evidence than direct treatment of the hamstrings
- ☐ **b.** Cervical treatment may avoid stretching pain sensitive structures
- ☐ **c.** Lifting heavy legs to stretch hamstrings may produce repetitive strain injuries
- ☐ **d.** Cervical treatment minimises the unpleasantness of treating a patient with bad foot odour

3. Which technique approaches involve active isometric muscle contraction?
- ☐ **a.** Post-isometric relaxation
- ☐ **b.** Muscle energy technique
- ☐ **c.** Proprioceptive neuromuscular facilitation
- ☐ **d.** All of the above

4. PKE stands for
- ☐ **a.** Possible knee electrocution
- ☐ **b.** Passive knee extension
- ☐ **c.** Passive kinetic exercise
- ☐ **d.** Probable knee elevation

5. The purpose of using a pressure dynamometer for testing was
- ☐ **a.** To measure the amount of stress the subject was under before and after treatment intervention
- ☐ **b.** To measure any knee joint effusion during the study
- ☐ **c.** To maintain a consistent torque before and after treatment intervention
- ☐ **d.** To measure the subject's Pressure Pain Threshold

6. This study found that cervical ICR produced
- ☐ **a.** Increased hamstring extensibility
- ☐ **b.** Decreased hamstring extensibility
- ☐ **c.** Variable changes in hamstring extensibility
- ☐ **d.** No effect on hamstring extensibility

7. In regard to this present study and that of Pollard & Ward:
- ☐ **a.** The study protocols were identical
- ☐ **b.** The measurement methods were different
- ☐ **c.** The treatment methods were different
- ☐ **d.** The conclusions were identical

8. In regard to the current study's use of PKE compared to the SLR:
- ☐ **a.** PKE is likely to be sensitive to hamstring length
- ☐ **b.** SLR may possibly more sensitive to neural stretching than PKE
- ☐ **c.** Pollard and Ward used SLR as an outcome measure
- ☐ **d.** All of the above

9. A possible reason why the results of this study did not support those in a previous study
- ☐ **a.** Different measuring procedures (PKE vs SLR)
- ☐ **b.** Different time interval between treatment and re-measurement (4 minutes vs 30 seconds)
- ☐ **c.** Different amount of force applied to the hamstrings (subject sense of stretch vs 5% of body weight)
- ☐ **d.** All of the above

10. This study
- ☐ **a.** Supports the use of cervical manipulation to influence hamstring extensibility
- ☐ **b.** Disproves absolutely any effect of cervical techniques on hamstring extensibility
- ☐ **c.** Disproves the craniosacral core-link hypothesis
- ☐ **d.** Recommends future studies using greater subject numbers and the measurement of SLR

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This quiz has been accredited by COCA at: ***one(1), category "1" point.***

This multiple choice quiz is based on an article in this issue. Please read each of the above questions carefully and place an "**X**" in the box of the corresponding correct answer. Please note that there is only one correct answer to each question. Then provide your NAME where indicated below, remove this page and return to: COCA, PO Box 1010, RINGWOOD VIC 3134.

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